

ALEX MACHIN-MAYES

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Specializations

ArcGIS/QGIS | Cartography | Geodatabases | GPS Data Collection | ArcGIS Online Administration | Web Design

Summary

GIS Specialist with seven years professional experience in GIS, cartography, GPS data collection, and data management. Have conducted a wide range of GIS projects covering archaeology, cultural resources, environmental management, emergency services, forestry, planning, public works, and real estate. Academic experience in web map development.

GIS Skills

- Geospatial data processing and analysis
- Cartographic design (web and print)
- Geodatabase design and management
- ArcGIS Online administration and support
- Data dictionary setup and GPS postprocessing
- U.S. Census data mapping and analysis

Technical Tools

- ArcGIS, ArcPro
- QGIS, GRASS
- Collector for ArcGIS
- Trimble Pathfinder Office
- HTML, CSS, JavaScript
- Python
- Esri JavaScript API
- Photoshop, Lightroom, Illustrator
- Mapbox, Leaflet

Education

M.S., Geographic Information Systems and Web Map Programming (2021)

University of Wisconsin-Madison

B.A., Human Geography | Minor: Geographic Information Systems (2012)

Western Washington University

Professional Experience

GIS Specialist/Consultant | Falcon Cultural Resources

Skagit County, WA (2019-Present)

- Archaeological site mapping
- GPS data processing
- Technical consulting and support

GIS Property Specialist | Swinomish Indian Tribal Community, Planning Dep.

La Conner, WA (2014-2017)

- Developed GIS, cartographic, and data collection products for numerous tribal government projects
- Utilized relational databases and coded domains to increase efficiency and QA/QC in data collection
- Administration of AGOL accounts and customizing Collector interfaces for government groups
- Designed ArcGIS Collector apps on smartphones and tablets for field data collection teams
- Digitized and cataloged infrastructure features into ESRI's Local Government Information Model and Parcel Fabrics
- Formatted, joined, and related tabular property data from county assessors to features classes for mapping and analysis
- Digitized property boundaries and parcels from land surveys, as-builts, and legal descriptions
- Collected GPS coordinates, photos, and attribute data on sensitive archaeological sites, and burial grounds
- Mapped orthographic place data in the Lushootseed language for use in legal and educational applications
- Set up Trimble GPS units with data dictionaries and post-processed data with differential corrections for precision

GIS Analyst | Independent Contractor

Whatcom County, WA (2012-2014)

- Contracted with Lummi Nation, Nooksack Tribe, and Northwest Indian Fisheries Commission (NWIFC) to identify and digitize all abandoned forest roads in Whatcom County for salmon habitat restoration utilizing landowner RMAPS, LiDAR, and NAIP imagery
- Contributed to preliminary research on shellfish contamination in Samish Bay, WA for NWIFC
- Assisted in the development of a comprehensive geodatabase and study template for researching steelhead habitat health indicators in the Hood Canal and Strait of Juan de Fuca
- Used NAIP orthoimagery to digitize the entire Nooksack River footprint at large scales for the USGS National Hydrography Dataset